

GLUCOSE, ANHYDROUS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 07/16/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Trade name : GLUCOSE, ANHYDROUS
CAS No : 50-99-7
Product code : AB00715
Formula : C₆H₁₂O₆
Synonyms : (+)-glucose / blood sugar / cartose / cerelose / cerelose 2001 / climax sugar / corn sugar / D-(+)-glucose / dextropur / dextrose / dextrosol / D-glucose / diabetic sugar / glucolin / glucose / glucosteril / grape sugar / honey sugar / sirup / staleydex 111 / staleydex 333 / starch sugar / tabfine 097(HS) / vadex

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Laboratory use/Manufacturing component/Research
Use of the substance/mixture : Food industry: additive

1.3. Details of the supplier of the safety data sheet

AmericanBio, Inc.
15 Erie Dr.
Natick, MA 01760 - USA
T 800.443.0600 - F 508.655.2754
info@americanbio.com - www.americanbio.com

1.4. Emergency telephone number

Emergency number : 855.835.2572 (U.S.) :: 760.602.8703 (Outside U.S.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name	Product identifier	%	GHS-US classification
GLUCOSE, ANHYDROUS (Main constituent)	(CAS No) 50-99-7	100	Not classified

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Assure fresh air breathing. Allow the victim to rest.

GLUCOSE, ANHYDROUS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

First-aid measures after skin contact	: Rinse with water. Take victim to a doctor if irritation persists. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Not applicable. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: Unlikely to cause harmful effects. Not expected to present a significant hazard under anticipated conditions of normal use.
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4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Polyvalent foam. ABC powder. Dry sand. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: No unsuitable extinguishing media known. Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD. No data available on direct fire hazard. INDIRECT FIRE HAZARD. No data available on indirect fire hazard.
Explosion hazard	: DIRECT EXPLOSION HAZARD. Fine dust is explosive with air. INDIRECT EXPLOSION HAZARD. Dust cloud can be ignited by a spark.
Reactivity	: Upon combustion: CO and CO ₂ are formed.

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: No specific fire-fighting instructions required. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.
Emergency procedures	: Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Evacuate unnecessary personnel.
Measures in case of dust release	: In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows. Dust production: stop engines and no smoking. In case of dust production: no naked flames or sparks. Dust: spark-/explosionproof appliances/lighting equipment.

6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. Powdered form: no compressed air for pumping over spills.
Methods for cleaning up	: Stop dust cloud by humidifying. Scoop solid spill into closing containers. Powdered: do not use compressed air for pumping over spills. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

GLUCOSE, ANHYDROUS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Thoroughly clean/dry the installation before use. Powdered form: no compressed air for pumping over. Avoid raising dust. Finely divided: spark- and explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight. Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. water/moisture.

Storage area : Store in a dry area. Store at room temperature. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. watertight. dry. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: plastics. cardboard.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Materials for protective clothing : GIVE GOOD RESISTANCE: butyl rubber. chlorosulfonated polyethylene. neoprene. viton.

Hand protection : Gloves. Wear protective gloves.

Eye protection : Safety glasses. In case of dust production: protective goggles. Chemical goggles or safety glasses.

Skin and body protection : Protective clothing.

Respiratory protection : Dust production: dust mask with filter type P1. Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Crystalline solid. Crystalline powder.

Molecular mass : 180.16 g/mol

Colour : White to light yellow.

Odour : Odourless.

Odour threshold : No data available

pH : 6 (10 %)

pH solution : 10 %

Relative evaporation rate (butylacetate=1) : No data available

Melting point : 146 °C

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Self ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapour pressure : No data available

GLUCOSE, ANHYDROUS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Relative vapour density at 20 °C	: No data available
Relative density	: 1.5
Density	: 1544 kg/m ³
Solubility	: Soluble in water. Water: 91 g/100ml
Log Pow	: -3.24 (Experimental value)
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content	: 0 %
Other properties	: Hygroscopic.

SECTION 10: Stability and reactivity

10.1. Reactivity

Upon combustion: CO and CO₂ are formed.

10.2. Chemical stability

Hygroscopic. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

GLUCOSE, ANHYDROUS (f) 50-99-7

LD50 oral rat	25800 mg/kg (Rat)
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Skin corrosion/irritation : Not classified
pH: 6 (10 %)

Serious eye damage/irritation : Not classified
pH: 6 (10 %)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

GLUCOSE, ANHYDROUS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 12: Ecological information

12.1. Toxicity

Ecology - air : TA-Luft Klasse 5.2.1.
Ecology - water : Mild water pollutant (surface water). No data available on ecotoxicity.

12.2. Persistence and degradability

GLUCOSE, ANHYDROUS (50-99-7)	
Persistence and degradability	Readily biodegradable in water. Not established.
ThOD	1.07 g O ₂ /g substance

12.3. Bioaccumulative potential

GLUCOSE, ANHYDROUS (50-99-7)	
Log Pow	-3.24 (Experimental value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Remove to an authorized waste treatment plant. Dispose in a safe manner in accordance with local/national regulations.
Additional information : LWCA (the Netherlands): KGA category 03. Can be considered as non hazardous waste according to Directive 2008/98/EC.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT
No dangerous good in sense of transport regulations

Additional information

Other information : No supplementary information available.
State during transport (ADR-RID) : Rail and road transport: not subject to ADR-RID.

ADR

Transport document description : UN N/A N/A
Packing group (ADR) : N/A
Hazard identification number (Kemler No.) : N/A
Classification code (ADR) : N/A

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

GLUCOSE, ANHYDROUS (50-99-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. International regulations

CANADA

No additional information available

GLUCOSE, ANHYDROUS

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Other information : None.

SDS US (GHS HazCom 2012)

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